

**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled **AUTOMATIC PHASE AND FREQUENCY ADJUSTMENT CIRCUIT AND METHOD**, the specification of which:

is attached hereto.

was filed on \_\_\_\_\_ as  
Application Serial No. \_\_\_\_\_

and was amended on \_\_\_\_\_  
(if applicable)

with amendments through \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in Title 37, Code of Federal Regulations, Sec. 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Sec. 119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)	Priority Claimed			
<hr/> (Number)	<hr/> (Country)	<hr/> (Day/Month/Year Filed)	<input type="checkbox"/> Yes	<input type="checkbox"/> No

I hereby claim the benefit under Title 35, United States Code, Sec. 119(e) of any United States provisional application listed below:

Provisional Application No.

60/213,202

Filing Date

June 21, 2000

I hereby claim the benefit under Title 35, United States Code, Sec. 120 of any United States application(s), or Sec. 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, Sec. 112. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Sec. 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

(App. Serial No.)

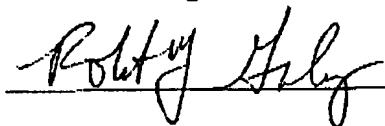
(Filing Date)

(Status -patented, pending, etc.)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole inventor: Robert Y. Greenberg

Inventor's signature:



6/20/01  
(Date)

Residence: Portland, Oregon

Citizenship: United States of America

Post Office address: 7679 SW Leslie Street  
Portland, OR 97223

PATENT APPLICATION  
Do. No. 7293-15

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Robert Y. Greenberg

Serial No. Not yet assigned

Group Art Unit: Not yet assigned

Filed: Herewith

Examiner: Not yet assigned

For: AUTOMATIC PHASE AND FREQUENCY ADJUSTMENT CIRCUIT AND  
METHOD

Assistant Commissioner for Patents

Washington, D.C. 20231

POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
AND REVOCATION OF PRIOR POWERS

I, Robert Y. Greenberg, Vice President of Pixelworks, Inc., having a place of business at 8100 SW Nyberg Road, Suite 100, Tualatin, Oregon 97062, assignee of the entire right, title and interest of the above-described U.S. patent application, by the assignment submitted under separate cover for recordal (copy enclosed), represent that I am empowered to sign on behalf of assignee.

As assignee of the above identified application, all powers of attorney previously given are hereby revoked and the following attorneys and/or patent agents are hereby appointed to prosecute and transact all business in the Patent and Trademark Office connected therewith:



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PATENT TRADEMARK OFFICE

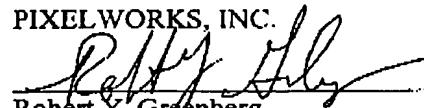
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Direct all telephone calls to Graciela G. Cowger at (503) 222-3613 and send all correspondence to:

Marger Johnson & McCollom, P.C.  
1030 S.W. Morrison Street  
Portland, Oregon 97205

Date: 6/20/01

PIXELWORKS, INC.

  
Robert Y. Greenberg  
Vice President

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ASSIGNMENT  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box PROVISIONAL PATENT APPLICATION  
Assistant Commissioner of Patents  
Washington, D.C. 20231

Please record the attached original document and return the recorded instrument to the undersigned.

1. Name of party conveying an interest: Robert Y. Greenberg
2. Name and address of party receiving an interest: Pixelworks, Inc.  
7700 SW Mohawk Street  
Tualatin, OR 97062

3. Description of the interest conveyed:

Assignment  Change of Name  Security Agreement  Merger

Date of execution of attached document: June 19, 2000

Application number(s) or patent number(s). Additional sheet attached? Yes  No

If this document is being filed together with a new application, the execution date of the application is: June 21, 2000

A. Patent Application No.

B. Patent No.

Name and address of party to whom correspondence concerning document should be mailed:

MARGER JOHNSON & McCOLLOM, P.C.  
1030 SW Morrison Street  
Portland, Oregon 97205  
Telephone: (503) 222-3613

6. Number of applications and patents involved: 1
7. Enclosed is our check for \$190, which includes \$40 for the assignment recordation fee.
8. Any deficiency or overpayment should be charged or credited to deposit account number 13-1703.
9. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Dated: June 21, 2000

Respectfully submitted  
MARGER JOHNSON & McCOLLOM, P.C.

*COPY OF ORIGINAL  
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Cowger  
Reg. No. 42,444

MARGER JOHNSON & McCOLLOM, P.C.  
1030 SW Morrison Street  
Portland, OR 97205  
(503) 222-3613

Total number of pages comprising  
cover sheet and attached assignment: 3

PROVISIONAL PATENT APPLICATION  
Attorney's Do. No. 7293-15

ASSIGNMENT

Assignor: Robert Y. Greenberg  
Address: 7679 SW Leslie Street  
Portland, OR 97223

Assignee: Pixelworks, Inc.  
Address: 7700 SW Mohawk Street  
Tualatin, OR 97062

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Title of Invention: AUTOMATIC PHASE/FREQUENCY ADJUSTMENT CIRCUIT

Application Serial No.: Not Yet Assigned

Filing Date: Herewith

For good and valuable consideration, the receipt of which is hereby acknowledged, the above-named Assignor hereby sells, assigns and transfers to Assignee, the full and exclusive right, title and interest in and to the above-identified invention, patent application and patent rights throughout the world, including foreign patent priority rights; said invention, application and letters patent in this or any foreign country, and all divisions, continuations, reissues and extensions thereof, to be held and enjoyed by Assignee, for its own use and benefit, and for its successors and assigns to the full end of the term for which letters patent may be granted in this or any foreign country, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and covenant that Assignor has full right so to do, and agree that Assignor will communicate to Assignee, or its successors and assigns, any facts known to Assignor respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths, and do everything possible to aid Assignee, its successors and assigns to obtain and enforce proper patent protection for said invention in this or any foreign country.

In the event that the patent application filing date or serial number is not known at the time this document is executed, Assignor hereby grants permission to the attorneys of record in the patent application to fill in the filing date and/or serial number above, and to record this assignment after such information is added.

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Executed at Tualatin, OR, this 19<sup>th</sup> day of  
June, 2000.

COPY OF ORIGINAL  
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Robert Y. Greenberg  
Assignor

STATE OF Oregon)  
County of Washington) ss.

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Before me this 19<sup>th</sup> day of June, 2000, personally  
appeared the above-named individual, to me known to be the person who is described in and  
who executed the foregoing assignment instrument and acknowledged to me that he executed  
the same of his own free will for the purpose therein expressed.



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Mary Connell-Hawkins  
Notary Public for OREGON  
My commission expires: 6/29/2002